Minimum Standard Detail Requirements

FOR

ALTA/ACSM

Land Title Surveys

as adopted by

American Land Title Association

and

American Congress On Surveying & Mapping

It is recognized that members of the American Land Title Association (ALTA) have specific problems, peculiar to title insurance matters, which require particular information in detail and exactness for acceptance by title insurance companies when said companies are asked to insure title to land without exceptions as to the many matters which might be discoverable from survey and inspection and not be evidenced by the public records. In the general interest of the public, the surveying profession, title insurers and abstracters, the American Land Title Association and the American Congress on Surveying and Mapping (ACSM) jointly promulgate and set forth such details and criteria for exactness. It is understood that local variations may require local adjustments to suit local situations, and often must be applied. It is recognized equally that title insurance companies are entitled to, and should be able to, rely on the evidence furnished to them being of the appropriate professional quality, both as to completeness and as to accuracy; that it is equally recognized that for the performance of a survey, the surveyor will be provided with appropriate data which can be relied upon in the preparation of the survey.

For a survey of real property and the plat or map of the survey to be acceptable to a title insurance company for purposes of insuring title to said real property free and clear of survey questions (except those questions disclosed by the survey and indicated on the plat or map), certain specific and pertinent information shall be presented for the distinct and clear understanding between the client (insured), the title insurance company (insurer), and the surveyor (the person professionally responsible for the survey). These requirements are:

(1) The client, at the time of ordering a survey, shall notify the surveyor that an "ALTA/ACSM LAND TITLE SURVEY" is required, meeting the accuracy requirements of a Class A, B, C, or D Survey as defined herein, and shall furnish to the surveyor the record description of the property and the record easements or servitudes and covenants affecting the property to which the "ALTA/ACSM LAND TITLE SURVEY" shall subsequently make reference. The names and deed data of all adjacent owners as available, and all pertinent information affecting the property being surveyed, shall be transmitted to the surveyor for notation on the plat or map of the survey. If the area of the parcel is required, the client shall so indicate to the surveyor. If the plat or map of survey is to include thereon a note as to zoning classification of the property, the client shall so clearly indicate to the surveyor. If applicable, the surveyor shall be informed by the client of any survey requirements of the Department of Housing and Urban Development, the Veterans Administration or any other government agency or entity.

(2) The plat or map of such survey shall bear the name, address, and signature of the professional land surveyor who made the survey, his or her official seal and registration number, the date of the survey, and the caption "ALTA/ACSM Land Title Survey" with the certification set forth in paragraph 8.

(3) An "ALTA/ACSM LAND TITLE SURVEY" shall be Class A, B, C, or D, in accor-
September 27, 1996

To the American Tax Association:

American Taxation and the Associate Professorship: An Annotated Bibliography

Under the sponsorship of the editor of this issue of the Journal of Taxation, the following items are included:


September 27, 1996
American Congress
On Surveying and Mapping

Classification and Specifications
For Cadastral Surveys

INTRODUCTION

The degree of precision necessary for a particular cadastral survey should be based on the intended use of the land parcel, without regard to its present use, provided the surveyor has knowledge of the intended use.

Four general survey classes are defined using various state regulations and accepted practices. These general classes are listed and defined in Table 1 below.

The combined precision of a survey can be statistically assured by dictating a combination of survey closure and specified procedures for a particular survey class. Table 2 lists the closures and specified procedures to follow in order to assure the combined precision of a particular survey class. The statistical base for these specifications is on file at the ACSM and available for inspection.

### TABLE 1

<table>
<thead>
<tr>
<th>Class A — Urban Surveys</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveys of land lying within or adjoining a City or Town. This would also include the surveys of Commercial and Industrial properties, Condominiums, Townhouses, Apartments and other multiunit developments, regardless of geographic location.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class B — Suburban Surveys</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveys of land lying outside urban areas. This land is used almost exclusively for single family residential use or residential subdivisions.</td>
</tr>
</tbody>
</table>

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<tr>
<th>Class C — Rural Surveys</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveys of land such as farms and other undeveloped land outside the suburban areas which may have a potential for future development.</td>
</tr>
</tbody>
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<tr>
<th>Class D — Mountain and Marshland Surveys</th>
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</thead>
<tbody>
<tr>
<td>Surveys of lands which normally lie in remote areas with difficult terrain and usually have limited potential for development.</td>
</tr>
</tbody>
</table>
## Table 2

**Minimum Angle, Distance and Closure Requirements for Classes of Surveys**

<table>
<thead>
<tr>
<th>Survey Class</th>
<th>Dir. Reading of Instrument (^{(2)})</th>
<th>Instrument Reading Estimated (^{(3)})</th>
<th>Number of Observations Per Station (^{(4)})</th>
<th>Spread from Mean of D&amp;R Not to Exceed (^{(5)})</th>
<th>Angle Closure Where N = No. of Stations Not to Exceed (^{(6)})</th>
<th>Linear Closure (^{(7)})</th>
<th>Distance Measurement (^{(8)})</th>
<th>Minimum Length of Measurements (^{(9)}), (^{(10)})</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>20° &lt;1'&gt; &lt;10°</td>
<td>5° &lt;0.1'&gt; N.A.</td>
<td>2 D&amp;R</td>
<td>5° &lt;0.1'&gt; &lt;5'</td>
<td>10° (\sqrt{N})</td>
<td>1:15,000</td>
<td>EDM or Double tape with steel tape</td>
<td>(8) 81m, (9) 153m (10) 20m</td>
</tr>
<tr>
<td>B</td>
<td>20° &lt;1'&gt; &lt;10°</td>
<td>10° &lt;0.1'&gt; N.A.</td>
<td>2 D&amp;R</td>
<td>10° &lt;0.2'&gt; &lt;10°</td>
<td>15° (\sqrt{N})</td>
<td>1:10,000</td>
<td>EDM or steel tape</td>
<td>(8) 54m, (9) 102m (10) 14m</td>
</tr>
<tr>
<td>C</td>
<td>&lt;20° &lt;1'&gt; &lt;20°</td>
<td>N.A.</td>
<td>1 D&amp;R</td>
<td>&lt;20° &lt;0.3'&gt; &lt;20°</td>
<td>20° (\sqrt{N})</td>
<td>1:7,500</td>
<td>EDM or steel tape</td>
<td>(8) 40m, (9) 76m (10) 10m</td>
</tr>
<tr>
<td>D</td>
<td>&lt;1'&gt; &lt;1'&gt; &lt;1'</td>
<td>N.A.</td>
<td>1 D&amp;R</td>
<td>&lt;30° &lt;0.5'&gt; &lt;30°</td>
<td>30° (\sqrt{N})</td>
<td>1:5,000</td>
<td>EDM or steel tape</td>
<td>(8) 27m, (9) 51m (10) 7m</td>
</tr>
</tbody>
</table>

\(^{(1)}\) All requirements of each class must be satisfied in order to qualify for that particular class of survey. The use of a more precise instrument does not change the other requirements, such as number of angles turned, etc.

\(^{(2)}\) Instrument must have a direct reading of at least the amount specified (not an estimated reading), i.e.; 10° = Micrometer reading theodolite, <1'> = Scale reading theodolite, 10° = Electronic reading theodolite, <20° = Micrometer reading theodolite, or a vernier reading transit.

\(^{(3)}\) Instrument must have the capability of allowing an estimated reading below the direct reading to the specified reading.

\(^{(4)}\) D & R means the Direct and Reverse positions of the instrument telescope, i.e., Class A requires that two angles in the direct and two angles in the reverse position be measured and averaged.

\(^{(5)}\) Any angle measured that exceeds the specified amount from the mean must be rejected and the set of angles re-measured.

\(^{(6)}\) Ratio of closure after angles are balanced and closure calculated.

\(^{(7)}\) All distance measurements must be made with a properly calibrated EDM or Steel tape, applying atmospheric, temperature, sag, tension, slope, scale factor and sea level corrections as necessary.

\(^{(8)}\) EDM having an error of 5mm, independent of distance measured (Manufacturers specification)

\(^{(9)}\) EDM having an error of 10mm, independent of distance measured (Manufacturers specifications)

\(^{(10)}\) Calibrated steel tape.